Application No.: 10/588,548 Response
Art Unit: 1794 Attorney Docket No.: 062869

# **REMARKS**

Claims 1-20 are pending in the application and stand rejected. Claim 1 has been amended.

No new matter is added. In light of the foregoing amendments and the following remarks,

Applicants earnestly solicit favorable reconsideration.

#### On the Merits

# Claim Rejections - 35 U.S.C. § 103(a):

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Oka et al.* (US Patent 5,747,152) in view of *Nishikawa et al.* (US Patent 6,914,540), hereinafter referred to as *Oka* and *Nishikawa* respectively.

## <u>Independent Claim 1:</u>

## Independent claim 1 requires:

A hard coat film comprising a hard coat layer, which is a cured coat layer, provided on at least one side of a transparent plastic film substrate, wherein

a hard coat layer forming material comprises: urethane acrylate (A); isocyanuric acid acrylate (B) and inorganic ultrafine particles (C), and

a mixing quantity of the isocyanuric acid acrylate (B) is about in the range of from 5 to 25 parts by weight relative to 100 parts by weight of the urethane acrylate (A),

a mixing quantity of the inorganic ultrafine particles (C) is about in the range of from 10 to 60 parts by weight relative to all resin components in a hard coat forming material, and

a difference in refractive index between the transparent plastic film substrate and the hard coat layer is 0.04 or less.

Support for the amendment to claim 1 may be found in paragraphs [0041] and [0044].

It is noted that paragraph [0037] describes that

"all the resin components" are "all the resin components in a hard coat forming material {a total sum of components (A) and (B) or a total sum of the components (A) and (B) and the added resin, if a resin material is further

added}".

Oka discloses using a "urethane resin" for an ionizing radiation curing resin. Column 14, lines 22-25 states that it is particularly preferred to incorporate urethane acrylate or the like as an oligomer and dipentaerythritol hexa (meth)acrylate or the like as a monomer. This disclosure in Oka corresponds to comparative Example 2 discussed in the specification on page 69 [paragraph]

53].

The Examiner acknowledges that *Oka* does not disclose isocyanuric acid but instead contends that it is disclosed in *Nishikawa*, specifically in column 4, lines 61-68. Here *Nishikawa* discloses "isocyanuric acid" for the hydroxyl group-containing polyfunctional (meth)acrylate.

Nishikawa deals with a laminate and antireflection film. The Examiner contends that it would have been obvious to add the isocyanuric acid to the teaching of Oka because such a monomer provides superior antistatic properties, antiscratching properties and transparency. Isocyanuric acid EO modified di(meth)acrylate described in Nishikawa pointed out by the Examiner is merely exemplified as the hydroxyl group containing polyfunctional (meth)acrylate in Component (B) (a reaction product of hydroxyl group containing polyfunctional

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(meth)acrylate and a diisocyanate compound). Thus, claim 1 of the present application would

not be attained by combining the description in Nishikawa with the description in Oka.

Further, the isocyanuric acid EO modified di(meth)acrylate described in Nishikawa

corresponds to Component (B) described in Nishikawa, namely, the material constituting

urethane acrylate in Oka. Thus, the description regarding isocyanuric acid EO modified

di(meth)acrylate in Nishikawa does not serve as support for the use of isocyanuric acid EO

modified di(meth)acrylate in addition to urethane acrylate in Oka.

Further, the invention disclosed in Oka is characterized in that ultrafine particles are

localized to form a functional ultrafine particle layer in the upper part of the hard coat layer.

Accordingly, the functional ultrafine particle layer provides ultraviolet screening effect, antistatic

effect and the like in the invention disclosed in Oka.

On the other hand, in the present invention, ultrafine particles are incorporated in the hard

coat layer to suppress curling, as described in paragraph [0016]. The reflective indexes of the

hard coat layer and the transparent film substrate are preferably small as described in paragraphs

[0045] and [0046] and claim 6. Thus, the ultrafine particles are substantially uniformly

distributed in the hard coat layer in the present invention, and the hard coat layer of the present

invention is not such that ultrafine particles are localized to form a functional ultrafine particle

layer as in the invention disclosed in Oka.

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In addition, Nishikawa describes that the second layer, pointed out by the Examiner, has a

high reflective index. Thus, Nishikawa is different from the present invention in this regard also;

(the hard coat layer is positioned between the second layer and the substrate in the disclosure in

Nishikawa).

Thus, for at least the above-noted reasons, the claimed invention would not have been

obvious over the combined teaching of the prior art. However, in order to further distinguish the

invention, claim 1 has been amended to set forth mixing quantities of urethane acrylate (A),

isocyanuric acid acrylate (B) and inorganic ultrafine particles (C). The combination of prior art

fails to teach or suggest these features of the invention.

In view of the above, Applicants respectfully submit that their claimed invention is

allowable and ask that the rejection under 35 U.S.C. §103(a) be reconsidered and withdrawn.

Applicants respectfully submit that this case is in condition for allowance and allowance is

respectfully solicited.

If any points remain at issue which the Examiner feels may be best resolved through a

personal or telephone interview, the Examiner is kindly requested to contact the undersigned at

the local exchange number listed below.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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